



NATIONAL CONSERVATION LANDS

Arizona
2022: Annual Manager's Report

Gila Box

Riparian National Conservation Area



Accomplishments

In 2022, the Gila Box Riparian National Conservation Area (Monument) staff, volunteers, and partners continued to implement a program of work to provide for public use and enjoyment while also protecting the Monument's resources. The partner/volunteer engagement activities below demonstrate the importance of managing the Monument as part of the larger landscape.

The Gila Watershed Partnership and Safford Field Office (SFO) received a Bring Back the Natives grant to mechanically remove nonnative Yellow Bullhead (*Ameiurus natalis*) from Bonita Creek, a tributary of the Gila River to benefit endangered and the Bureau of Land Management's (BLM) sensitive fish species. Removal of nonnative fish reduces the potential extirpation of the native fish species and increases their resiliency to withstand drought. Ten nonnative removal trips were conducted from January through November 2022 and 814 Yellow Bullhead were removed.



A manuscript entitled, "Efficacy of Mechanical Removal of Green Sunfish (*Lepomis cyanellus*) from a Closed System (Bonita Creek)" was submitted for publication in North American Journal of Fisheries Management. The findings presented in the manuscript demonstrate successful application of the mechanical removal of nonnative Green Sunfish that has broad implications for sensitive species and systems, not only in the southwest, but anywhere. It serves to inspire anyone who wants to implement a similar program in their area of concern.

Annual monitoring of the Bonita Creek fishery was accomplished with the assistance of a Tohono O'odham Nation youth crew. The crew learned different methodologies on how to capture fish using both passive and active gear types (*i.e.*, traps and backpack electrofishing), native and nonnative fish identification, how to conduct a pebble count (an assessment that characterizes the channel and bed material present through a given study reach of a stream), and data recording. Through electrofishing and trapping efforts they collected a total of 1,567; 93.30% (n=1,462) were native, 6.00% (n=94) were nonnative, and 0.70% (n=11) were unidentified young-of-year.



Additionally, Western Yellow-billed Cuckoo (*Coccyzus americanus*) population monitoring was conducted using playback calls along the Gila River. In Fiscal Year 2022, playback surveys were performed in multiple locations along the Gila River. Six Yellow-billed Cuckoo were detected during surveys. While specific surveys were not performed for Southwestern Willow Flycatcher (*Empidonax traillii extimus*), incidental observations occurred twice during the spring of 2022, along the Gila River.

The SFO's newly hired Park Ranger (River Ranger) forged strong connections with local partners and user groups such as The Graham County Search and Rescue. He presented at local meetings and led swift water rescue training exercises. His skill set is not only valuable to the BLM, but also meets the needs of the community. Over the next year, we will be working toward improved outreach and education.



Challenges

Protection of the Monument from unauthorized livestock is challenging due to difficult terrain, unforeseen natural events, and other human caused factors. While the BLM has and continues to monitor the Monument for unauthorized livestock, work with livestock owners to remove animals, repair fences, and provide documentation of completed inspections and any subsequent corrective actions continues to be challenging.



Visitors

Visitor opportunities are abundant in the Monument including camping, hiking, birding, kayaking, rafting, hunting, wildlife viewing, photography, and off-highway vehicle (OHV) driving.

Visitation increased slightly in 2022 with an estimated 32,103 visits and 66,231 visitor days. The Monument is seeing a slight uptick in visitors who are travelling and staying longer periods of time.



Partnerships

The BLM SFO continues to work with multiple partners on various projects in the Monument. These partners include:

- **Graham County Chamber of Commerce:** The chamber continues to partner with BLM in helping to educate local visitors.
- **Grazing Permittees:** The grazing permittees continue to be vigilant in keeping incidental unauthorized cattle out of riparian areas within the Monument. This has and continues to be a high priority for the SFO, and these efforts are bolstered by the coordination of our partners and permittees.
- **Gila Watershed Partnership:** Continues to assist the SFO with annual fish monitoring at Bonita Creek and the Gila River.
- **Bureau of Reclamation (BOR):** Continues to work with the SFO to maintain a fish barrier to prevent nonnative fish from swimming upstream into Bonita Creek. The BOR also provides funding to the SFO through the Gila River basin native fishes conservation program for nonnative fish removal in Bonita Creek.
- **Fish and Wildlife Service:** Partnered with the SFO to monitor threatened and endangered fish in Bonita Creek. Additionally, they assisted with nonnative fish removal from Bonita Creek.
- **City of Safford:** The SFO staff worked closely with the City of Safford to allow for their operation and maintenance of the city's water supply system, located in Bonita Creek within the Monument. This was a major effort to manage issues associated with a growing beaver population that enhances the values of the Monument but may impact the water supply operation. This relationship is guided by a Memorandum of Understanding between the City of Safford and BLM.

Science

The BLM developed the National Aquatic Monitoring Framework (NAMF) to monitor the condition and trend of aquatic systems as part of the Assessment, Inventory and Monitoring (AIM) Strategy. The NAMF standardized field sampling methodologies, electronic data capture, and the use of appropriate sample designs for wadable streams and rivers (lotic systems). The BLM AIM Aquatic Core Indicator Work Group (ACIWG), with guidance from an external science advisory team, developed the protocol used today containing 11 core methods, 8 contingent methods, and several covariates applicable for lotic systems. The 11 core methods represent a consistent, quantitative approach for determining the attainment of BLM land health standards for perennial wadable streams and rivers.

This newly developed AIM lotic protocol was deployed for the first time in Arizona in 2022. BLM staff worked with specialized crews to collect hundreds of data points at five locations within the Monument. This data describes the current conditions of the aquatic systems and eventually can provide insight by describing trends related to hydrogeomorphology, vegetation communities, human influence, and many other ecosystem variables over the next few decades. The AIM protocol is a tool that will help to inform management of the Monument in perpetuity.

The picture below identifies important Gila River water levels. The scour line, indicated by the blue line, is used to identify the stream location to monitor for AIM lotic protocols, this is the normal height of the water. The bank full height, indicated by the orange line, is the height on stream banks where water fills the channel and begins to overflow onto the active bench. The bench is used to assess flood plain connectivity.



Climate Impacts/Climate Resiliency

Climate impacts are not apparent in the Monument. Vegetation remains static and resilient throughout the Monument. This was exhibited by the riparian vegetation's ability to withstand substantial flooding that occurred along the Gila River throughout the summer and winter of 2022.



Social and Environmental Justice

The Monument hosts several Special Recreation Permits. The Monument uplands support multiple uses that have an economic impact to the local area. Among these uses are hunting and livestock grazing.

Words From the Staff

Actions taken to support the exclusion of incidental unauthorized livestock from the Monument include collaboration with permittees, routine compliance inspections, and continual repairing of damaged fences caused by natural wear, frequent flood events, and the recreating public. With the resource protection of the Monument in the forefront, the BLM pursues partnerships and funding to aid in this endeavor. The work of BLM law enforcement officers and volunteers helped keep unauthorized OHV use at a minimum, and as a result reduced sediment loading in the river.

In the arid deserts of southeast Arizona, the Monument is a literal oasis. It is an important hub for wildlife and boasts a truly impressive native fishery. It embodies the BLM mission through its management of multiple use (recreation, habitat, livestock grazing, etc.), all the while maintaining the values for which it was designated.





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